

Mechanical HALT



Model: EQGNZ27

Standard Features

- Refrigeration
 - ESPEC Cascade refrigeration
 - Boost LN₂ injection - optional
- Controls:
 - ESPEC integrated P-300 controller with color touch screen
- xLF2 Vibration Table

FUSING MECHANICAL REFRIGERATION AND ACCELERATED TESTING

ESPEC offers a compressor based HALT system, that brings a whole new level of accessibility and achievability to customers and locations where traditional HALT systems just aren't feasible. Whether LN₂ is difficult or too costly to attain and maintain, or the infrastructure just doesn't allow for LN₂, this is your answer. Likewise, this new system serves customers who want the LN₂ boost for testing and achieving rapid thermal ramps, but perhaps don't need it all the time for all testing. In those interim times, you have full accessibility and integration with mechanical refrigeration. The random shock vibration table provides the complete combined environment needed for full HALT testing. This is a robust system built on the proven, quality technologies from ESPEC and the Qualmark product line, so you know you are investing in the best.

Work Space	39.4" w x 45.0" d x 26.1" h (1000 mm x 1143 mm x 663 mm)
Outer Dimensions ¹	EQGNZ27-6NAL 2.5: 50.7" w x 98.3" d x 89.7" h (1288 mm x 2497 mm x 2278 mm) EQGNZ27-12NWL 2.5: 50.7" w x 98.3" d x 76.0" h (1288 mm x 2497 mm x 1920 mm) EQGNZ27-15NW 2.5: 50.7" w x 134.3" d x 79.3" h (1288 mm x 3411 mm x 2014 mm)
Table Size	30.0" x 30.0" (762 mm x 762 mm)
Actuators	(8) Eight pneumatic, impulse-type Lubricant-free actuators
Table Capacity	320 lb (145 kg)
Acceleration	5 – 75 gRMS (10 Hz to 5000 Hz) ¹
Temp Range	+180°C to -70°C
Weight	EQGNZ27-6NAL 2.5: 2900 lb (1318 kg) EQGNZ27-12NWL 2.5: 2470 lb (1120 kg) EQGNZ27-15NW 2.5: 3970 lb (1800 kg)

¹ Measured on bare table; maximum Grms level dependent on table loading.

Since ESPEC continually improves product and service offerings, specifications are subject to change without notice. Please check with ESPEC to ensure you have the latest specification.

Mechanical HALT includes:

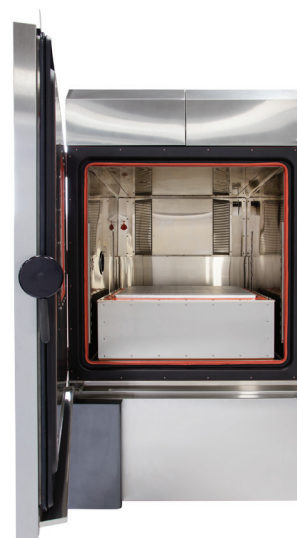
- One (1) year warranty
- Operations & Maintenance manual
- One (1) accelerometer for table control
- One (1) 20 ft accelerometer cable
- One (1) thermocouple for air temperature control
- Dry air purge (10 SCFM)

Chamber Options:

- QDaq - Data Acquisition System
- Spectrum Analyzer
- Additional cable ports: 2" (50 mm), 4" (100 mm), or 6" (150 mm)

Control:

- ESPEC Integrated P-300 Controller



Temperature Rate of Change³

Model	Dry HEaters	Compressor	Heating °C/min Average Rate		Cooling °C/min Average Rate		Live Load			
							23 °C		-50 °C	
			400V	460V	50Hz	60Hz	50 Hz	60 Hz	50 Hz	60 Hz
EQGNZ27-6NAL2.5	10 kW	6 hp x 2	8	8	4.5	5	5.2	6.2	3	3.6
EQGNZ27-12NWL2.5	15 kW	12 hp x 2	12	12	9	10	5.8	7	4.2	5
EQGNZ27-15NW2.5	20 kW	15 hp x 3	15	15	15	15	10	12	7.8	9.4

³ per IEC 60068 3-5 except measured in supply air

Utilities - Power (Service Size, Amps)

Model	400V – 3φ – 50Hz*	460V – 3φ – 60Hz**	Cooling
EQGNZ27-6NAL2.5	50 A	45 A	Integrated-Air
EQGNZ27-12NWL2.5	80 A	70 A	Water
EQGNZ27-15NW2.5	100 A	100 A	Water

* 400V +/-5% ** 460V +/-10%/-5%

- Refrigeration Cooling:
 - Air Cooled (Built-in)

Model	Heat Rejection to Ambient (BTU/Hr)
EQGNZ27-6NAL2.5	60,000

- Water Cooled

Model	Water ^{4,5} (gpm) @ 30°C	Connection Size (NPT)
EQGNZ27-12NWL2.5	27	1 ¼"
EQGNZ27-15NW2.5	32	1 ¼"

⁴ Minimum 30 psi differential pressure

⁵ Flow rate and pressure vary with water temperature. Detailed flowrate charts available upon request.